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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/738,591
Filing Date: December 15, 2000
Appellant(s): OTTER, JIM

Matthew L. Koziarz
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11-12-07 appealing from the Office action mailed 08-03-06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Board Decision for Appeal No. 2004-1869 Affirming the Examiner's Answer of 1/12/04.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. In section III, line 3, Takati is a mis-spelling of Takagi, previously cited.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,421,789	KANEKO et al	12-1983
5,728,424	WALLING	3-1998
6,132,801	LINFORD	10-2000
3,450,585	TAKAGI et al	6-1969
4,848,314	BENTLEY	7-1989

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of having the first roller "resist cooling of the film" can only reasonably be interpreted to mean that cooling is prevented and heating of the film is maintained. This is supported by page 4, 19-20 (which Applicant cites as "support") which states "the first smaller roller 24 is controlled to prevent the film from cooling too fast". Since "resist cooling" means to prevent or inhibit cooling (i.e. maintain heating), Applicants do not have support for resisting cooling only to a degree, as Applicant asserts. Thus the specification requires at least some

cooling, albeit at a specific rate whereas the claim amendment as worded resists/ prevents cooling. Thus the limitation is deemed to be New Matter.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3, 5,22,26,33-35,37-39,42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bentley et al US 4848314 in view of Kaneko et al US 4421789 and further in view of Barclay US 2899288 in combination, and further in view of Walling US 5728424 and Takagi US 3450585.

Bentley teaches a heat exchanger part formed by laminating a corrosion-resistant, stable thermoplastic polymer sheet material to a metal surface (carbon steel, aluminum, etc), col. 3, 43-col. 4, 43. In service, the resultant part permits flow of condensed water which is removed from the unit in the presence of a corrosive flue gas. The mode of making the polymer sheet material is not limited, thereby including extrusion per claim 38. It is further the Examiner's position that the method of making the sheet is irrelevant since material behavior is the same regardless of forming method, absent a clear showing to the contrary. Use of polar particulates on the sheet material is not cited.

Kaneko et al teaches forming similar heat exchanger parts comprising a metal substrate onto which is applied a thermoplastic, corrosion-resistant polymer coating film, and then applying thereto polar silica particles to increase wettability of the surface and hence process efficiency (col. 1, 30-50; col. 2, 52-63; col. 3, 3-37). Application may be by powders, an aqueous

suspension, sol solution, etc. As noted in Example 8, resin-coated panels were squeezed and dried, followed by application of the silica in sol form (a sol being a liquid dispersion of very fine-sized particulates), followed by roller squeezing and heating (necessarily ultimately including cooling to provide utility to the article), according to claims 3-4.

Both references are directed to forming heat-exchanger parts having surfaces which are corrosion resistant by virtue of a thermoplastic polymeric surface layer (per claim 2) and demonstrate wettability to allow condensate flow. While Bentley et al does not teach application of polar particles, Kaneko et al explicitly teaches to apply such particles for improved wetting, such that one of ordinary skill would have been motivated to apply polar particles to the thermoplastic sheet material of Bentley et al to provide the advantage of improved wetting and process efficiency. The concept of application of particles to a heated film and embedding with one or more thermally controlled rollers is not cited.

Barclay teaches to apply and spread abrasive particles onto a preheated thermoplastic sheet which may be softened by the heat, and running the coated/preheated sheet through a pair of rollers (per claim 5) with a cooling fluid therein so that temperature of the particle coated sheet is regulated to allow embedding of the particles and cooling to return the plastic material to its "original state (solid). See col. 1,63- col. 2, 12. Barclay provides a method of bonding particles to plastic substrates which obviates an adhesive, thereby improving cost-effectiveness, and is simpler and commercially feasible (col. 1, 25-35). Since Barclay is directed to applying and adhering particles to a plastic sheet, as is the combination of references above, although for different products Barclay is analogous art directed towards the same field of endeavor (applying particles to a polymeric sheet substrate) . In re Biglio 72 USPQ2d 1209. Similarly Walling

applies and embeds solid particulates to a plastic geomembrane web, in which on col. 4, 63- col. 5, 60 it is taught to preheat the plastic web using a postheater 24 to achieve "the desired degree of bond (adhesion) between the granules (= particles) and the membrane 12 " (plastic), and further it is disclosed that rollers 42,44 can serve the purposes of the postheater to cause said bonding. Thus is drawn a nexus between rollers and a post-heater to cause bonding, the post-heater providing a temperature cycle to achieve the bonding. Given the suggestion of a roller 42,44utilizing heat for bonding instead of a heater, one of ordinary skill would have looked to other heated rollers systems such as that of Takagi which provides a nip for a plastic/ resin sheet in which the top roller 1' is heated and bottom roller 1 is cooled to control melting of the sheet even though the top surface may experience high heat from the upper roller, per claim 42. The ultimate product would have resulted in particles bonded into the plastic sheet material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Bentley et al by incorporating polar particles onto the corrosion-resistant thermoplastic as taught by Kaneko et al to improve wettability and overall process efficiency, and further incorporating embedding particles into the sheet in place of adhesive as taught by Barclay using thermal heating/ rollers per Walling and Takagi to provide an improved method of embedding particles for heat exchange applications which eliminates the detriments of adhesive and provides a simpler, more cost-effective process.

As to claims 37 & 22, Kaneko et al expressly discloses polar silica particles and olefin type resin films (col. 2, line 61), encompassing conventional polyolefins. Surface tension/ energy of the film comprising the polar silica particulates must necessarily be increased in both the Applicants invention and combination of references of the rejection to increase flow/ wettability

of condensed water as taught by Kaneko et al (col. 3, 23-53) per claim 26. As to claim 5, using both adhesive and hot pressing to imbed particles together would have been an obvious method of adhering particles since both ways are know means to bond particles to a thermoplastic sheet substrate.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bentley et al US 4848314 in view of Kaneko et al US 4421789 and further in view of Barclay US 2899288 in combination, and further in view of Walling US 5728424 and Takagi US 3450585, and further in view of further in view Linford US 6132801. Previous references are cited for the reasons above, incorporated herein.

Linford teaches on col.1, 33-54 and col. 5, 1-8 that the application of a polymeric coating on silica and other inorganic particles allows a more robust coating attachment in micro particle/ polymer composite materials to prevent de-bonding of the particles. Since the combination of references teaches polar particles adhered to a polymeric base, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process of Prior Art references by coating the applied particles with a polymeric coating as taught by Linford to provide the benefits of a stronger attachment of the particles to the base, thereby reducing de-bonding of the crucial inorganic particles and resulting in a longer useful lifetime of the parts.

(10) Response to Arguments

Applicant's arguments do not contest the teachings cited by the Examiner for the Bentley, Kanecko, and Barclay references. However,

a) Applicants argue there is no motivation to combine Walling and Takagi because the skilled artisan would not have looked to the latter to embed polar particles in a film. Clearly, Kanecko, in table 6 and Examples 8-9, teach polar particles must be present and adhered at the surfaces of the polymer film to make them hydrophilic. Therefore the Examiner introduced Walling, which teaches the concept of heating a polymer substrate prior to, or after application of particles by heated rollers 42,44, to cause partial embedding and bonding of the particles to the polymer film. The rollers "press the granules more tightly into the ... surface" (col. 5, 47-50), causing embedding and bonding. Takagi teaches an alternate system of heated rollers wherein only top roller 1' is heated (analogous to Walling roller 44) and bottom roller 1 is cooled to prevent melting (and therefore deformation/ distortion) of the polymer substrate even though the top roller provides high heat to the upper surface of the substrate onto which a resin powder has been sprinkled. Given the nexus provided by the rejection, the substitution of the hot lower roller 42 of Walling with a cold roller 1 as disclosed by Takagi would have been an obvious modification to provide the recognized advantage of the avoidance of detrimental melting of the substrate while the top surface containing particles remains hot for further processing. See Takagi col. 3, 36-45. Thus Applicants arguments are not persuasive and the rejection of claims 1-3,5,22,26,33-35,37-39,42 should be maintained.

bi) Applicants essentially reiterate the previous arguments for claim 42, and further argue the Examiner is "speculating without any sound reasoning or evidentiary basis the

proposed modifications would result in ....improved embedding of the particles". The Examiner notes Applicants admit Walling embeds particles in a polymer substrate using heated rollers. The advantage of not melting / deforming the base substrate by substituting the cool roller of Takagi for the lower hot roller of Walling as explained above provides significant motivation to combine.

bii) Applicant argues the Examiner has used impermissible hindsight in the rejections, In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The allegation that there is no reason for the substitution of bottom rollers is explained above in detail, and will not be repeated for brevity. The Examiner notes that Applicants arguments fail to directly address the Examiner's rationale and do not persuasively provide reasons why their process is not simply an aggregate of known steps with known outcomes to apply particles to a heated film prior to adding the particle coated film to a component. For all these reasons, the rejection should be maintained.

III) Applicants argue the rejection of claim 7 relative to Linford, asserting the Examiner has "ignored" the function of the particles applied to the sheet for use in the heat exchanger. The Examiner assures the reader this was not the case, pointing out that the claims as written simply require…

"coating an outer surface of the plurality of polar particulates with a coating".

Neither claims 1 or 7 require the final embedded coated particles to have any specific wetting properties, they only require the applied particles to be "polar". Applicant's specification (page 6, 4-6 and figure 4) teaches surface treatments (which encompass "coating") "can be utilized to enhance adhesion **or** to enhance wettability". Linford teaches the application of a polymeric coating on polar silica and other inorganic particles allows a more robust coating attachment in micro particle/ polymer composite materials to prevent de-bonding of applied particles (motivation), thereby meeting Applicants' claim limitation. Furthermore, if it is unclear how Linford's coating would "conceal the polar particles and destroy the function of the particles" but Applicant's coating the particles per claim 7 would neither conceal the polar particles nor destroy the function of the particles. Thus Applicant's argument is not commensurate with the scope of the claims as written and the argument is not convincing. For all these reasons, the rejection should be maintained.

The Examiner maintains he has established a prima facia case of obviousness because the combinations of references are related to the same or similar fields of endeavor, and the instant claimed invention simply combines a plurality of familiar elements according to the known

methods of the prior art to yield no more than technically predictable results. Hence the claim rejections under 35 USC 103 should be maintained.

(11) Related Proceeding(s) Appendix

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Fred J. Parker

FRED J. PARKER
PRIMARY EXAMINER

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Timothy Meeks, SPE AU 1792

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte JIM OTTER

Appeal No. 2004-1869
Application No. 09/738,591

ON BRIEF

Before OWENS, TIMM, and JEFFREY T. SMITH, *Administrative Patent Judges.*

TIMM, *Administrative Patent Judge.*

DECISION ON APPEAL

This appeal involves claims 1-5, 7, 20-23, 25, 26, and 28. Claims 8-19 have been withdrawn by the Examiner. Claim 27 has been allowed. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 134.

INTRODUCTION

The claims are directed to a method for making a film for use with a heat transfer component. Claims 1, 5, 7, and 21 are illustrative:

1. A method for making a film for use with a heat transfer component comprising the steps of:

applying a plurality of polar particulates to a surface of a film;
then adhering said plurality of polar particulates to said surface of said film; and
then adding said film to said heat transfer component.

5. The method as recited in claim 1 further including the step of applying an adhesive substance to said surface of said film, and wherein the step of adhering said plurality of polar particulates comprises pressing said plurality of polar particulates into said adhesive substance.

7. The method as recited in claim 1 further comprising the step of coating an outer surface of said plurality of polar particulates with a coating.

21. The method as recited in claim 1 wherein said plurality of polar particulates are one of alumina, zirconia, wollastonite, talc, and titanium dioxide.

As evidence of unpatentability, the Examiner relies upon the following prior art references:

McCulloch et al. (McCulloch)	3,973,510	Aug. 10, 1976
Kaneko et al. (Kaneko)	4,421,789	Dec. 20, 1983
Bentley	4,848,314	Jul. 18, 1989
Hayakawa et al. (Hayakawa)	6,013,372	Jan. 11, 2000
Linford	6,132,801	Oct. 17, 2000

The specific rejections are as follows:

1. Claims 1-4, 20, 22, 23, 26 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bentley in view of Kaneko (Answer, pp. 3-4).

2. Claims 5 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bentley in view of Kaneko and further in view of McCulloch (Answer, p. 5).

3. Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bentley in view of Kaneko and further in view of Linford (Answer, pp. 5-6).

4. Claims 21 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bentley in view of Kaneko and further in view of Hayakawa (Answer, pp. 6-7).

We affirm the decision of the Examiner with respect to all four rejections. In so doing, we incorporate the reasoning of the Examiner provided in the Answer and add the following.

OPINION

Obviousness of Claims 1-4, 20, 22, 23, 26, and 28

The Examiner rejects claims 1-4, 20, 22, 23, 26, and 28 as obvious over Bentley in view of Kaneko. The claims stand or fall together (Brief, p. 3). We select claim 1 to represent the issues on appeal.

Claim 1 is directed to a method for making a film for use with a heat transfer component. In the method, a plurality of polar particulates are applied and bonded to the surface of a film prior to adding the film to the heat transfer component. There is no dispute that Bentley describes adding a film to a heat transfer component as claimed. According to Appellant,

Bentley teaches "a condensing furnace having a thin layer of a corrosion resistant material adhesively bonded to a metal blank (Brief, p. 3)." The condensing furnace is a heat exchanger part and the corrosion resistant material is a thermoplastic polymer film (Answer, p. 3). The Examiner acknowledges that Bentley is silent towards the use of polar particulates on the sheet material (Answer, p. 3).

The Examiner cites Kaneko for its teaching of applying, by lamination, a similar corrosion resistant polymer film to heat exchanger parts (Final Rejection, p. 4; *see also* Answer, p. 3). In addition, Kaneko teaches applying polar silica particulates, in any convenient manner, to a polymer coated metal substrate in order to increase the wettability of the surface and hence increase the process efficiency (Answer, p. 3).

Appellant points out that the claims require applying and adhering the polar particulates to the surface of the film *prior to* applying the film to the heat exchanger component (Brief, p. 4). Appellant argues that "[i]f Kaneko and Bentley could be combined, the combination at best would teach adding the polar particulates to the film **after** the film is applied to the heat exchanger." (Brief, p. 4). On this basis, Appellant argues that neither reference includes a suggestion of applying the particulates in the order claimed (Brief, p. 4).

We are not convinced by Appellant's argument. In making a determination of obviousness, one must look at what the combined teachings of the references would have suggested to those of ordinary skill in the art. As stated in *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871,881 (CCPA 1981):

> The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

Here, the combined teachings of Bentley and Kaneko would have suggested applying the polar particulates of Kaneko to the preformed film of Bentley. That the application may be accomplished before or after lamination of the film to the metal substrate is apparent from the process of Bentley. Bentley describes a process of laminating a polymer film onto the metal substrate of a heat transfer component to provide corrosion resistance (Bentley, col. 1, ll. 64-68 and col. 4, ll. 26-42). One of ordinary skill in the art practicing the process of Bentley utilizes a preformed polymer film. The preformed film described in Bentley is in its final chemical form before lamination to the metal substrate (Bentley, col. 4, ll. 26-33). Bentley thus presents a surface upon which silica particulate will adhere before the film is laminated to the metal substrate.

We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claims 1-4, 20, 22, 23, 26 and 28 which has not been sufficiently rebutted by Appellant.

Obviousness of Claims 5 and 28

The Examiner rejects claims 5 and 28 as obvious over Bentley in view of Kaneko and further in view of McCulloch. The claims stand or fall together (Brief, p. 3). We select claim 5 to represent the issues on appeal.

Claim 5 further limits claim 1 to require applying an adhesive substance to the surface of the film and that the step of adhering the plurality of polar particulates comprises pressing the plurality of polar particulates into the adhesive substance. The Examiner finds that Bentley and Kaneko are silent towards applying the polar particulates by pressing them into an adhesive applied to the surface of the polymer film (Answer, p. 5). The Examiner cites McCulloch for its teaching of applying silica particulates to an adhesive coated surface by blowing the particulates onto the tacky adhesive coating which necessarily presses the particulates into the adhesive (Answer, p. 5).

Appellant argues that there is no suggestion to employ a tacky adhesive layer in the combination of Bentley and Kaneko in order to adhere the silica particulates to the polymer film because Kaneko teaches applying the silica particulates to the film as a solution and moisture is removed to adhere the silica particles to the film (Brief, p. 5; Reply Brief, p. 2). We do not agree. Kaneko discloses that the silica particulates can be applied to the polymer film, in any convenient manner, including as a powder (Answer, p. 9). It is well settled that with regard to the issue of obviousness, the combined teachings of the prior art as a whole must be considered. *EWP Corp. v Reliance Universal, Inc.*, 755 F.2d 898, 907, 225 USPQ 20, 25 (Fed. Cir.), *cert.*

denied, 474 U.S. 843 (1985). In addition, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in their art, including non-preferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 807, 10 USPQ2d 1843, 1847 (Fed. Cir. 1989). Appellant focuses on the preferred embodiment of Kaneko of applying the silica particulates as a solution and ignores the broader teachings of Kaneko and, additionally, ignores the teachings of McCulloch. Appellant has failed to convince us of reversible error on the part of the Examiner.

We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claims 5 and 28 which has not been sufficiently rebutted by Appellant.

Obviousness of Claim 7

The Examiner rejects claim 7 as obvious over Bentley in view of Kaneko and further in view of Linford.

Claim 7 further limits claim 1 to require coating an outer surface of the plurality of polar particulates.

The Examiner finds that Bentley and Kaneko are silent towards coating the outer surface of the polar silica particulates (Answer, p. 6). The Examiner cites Linford for its teaching of applying a polymer coating to silica particulates as a coupling agent when embedding particulates in a polymer or plastic to prevent de-bonding (Answer, p. 6).

Appellant argues that there is no suggestion to employ an adhesive polymer coating in the combination of Bentley and Kaneko in order to adhere the silica particulates to the polymer film because Kaneko teaches applying the silica particulates to the film as a solution (Brief, p. 5; Reply Brief, p. 2). As discussed above in relation to claim 5, Applicant does not address the finding of the Examiner with regard to Kaneko that the silica particulates can be applied in any convenient manner including as a powder (Answer, p. 10). Appellant again fails to convince us of reversible error on the part of the Examiner.

Appellant further argues that the silica particulates taught in Kaneko form a hydrophilic surface and that if the silica particulates are coated then the surface would no longer be hydrophilic and the effect of increased wettability would be lost (Brief, pp. 5-6). It is noted that the specification teaches using a surface treatment (coating) for the particulates either to enhance adhesion of the particulates to the polymer film or to enhance wettability and that any coating can be utilized to enhance adhesion or wettability (page 6, lines 4-9). Linford teaches a wide variety of polymers for coating the silica particulates, some of which are hydrophilic (Linford, col. 4, ll. 60-67) and one skilled in the art would have had the requisite knowledge needed to determine what type of polymer to utilize for coating the silica particulates to ensure adequate adhesion to the polymer film and provide the desired hydrophilic nature of the surface in order to increase the wettability of the film. Appellant has not convinced us that one of ordinary skill in the art would not have had the required knowledge to select an appropriate polymer for coating the silica particulates.

We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claim 7 which has not been sufficiently rebutted by Appellant.

Obviousness of Claims 21 and 25

The Examiner rejects claims 21 and 25 as obvious over Bentley in view of Kaneko and further in view of Hayakawa. The claims stand or fall together (Brief, p. 3). We select claim 21 to represent the issues on appeal.

Claim 21 further limits claim 1 to require that the plurality of polar particulates are one of alumina, zirconia, wollastonite, talc, and titanium dioxide.

The Examiner finds that Bentley and Kaneko are silent towards applying polar particulates from one of the claimed list. The Examiner cites Hayakawa for its teaching of applying polar titanium dioxide (titania) particulates alone, or in combination with silica, to fins of a heat exchanger to increase the wettability of the fin surface (Answer, pp. 6, 11).

Appellant argues that Kaneko teaches that the silanol groups of the silica particulates provide a hydrophilic surface and that titanium dioxide particulates would not have such silanol groups (Brief, p. 6).

We agree with the Examiner's findings and conclusions provided in the Answer that while the titanium dioxide particulates do not contain silanol groups, the prior art recognizes that titanium dioxide performs the same function for the same application.

We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claims 21 and 25 which has not been sufficiently rebutted by Appellant.

CONCLUSION

To summarize, the decision of the Examiner to reject claims 1-5, 7, 20-23, 25, 26, and 28 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

TERRY J. OWENS
Administrative Patent Judge

CATHERINE TIMM
Administrative Patent Judge

JEFFREY T. SMITH
Administrative Patent Judge

) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES

CT/jrg

Appeal No. 2004-1869
Application No. 09/738,591

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